कालवा वितरण प्रणालीचे विदागार (Database) संकलन व वार्षिक तपासणीचे विहीत प्रपत्र

महाराष्ट्र शासन

जलसंपदा विभाग

शासन निर्णय क्रमांक संकीर्ण २०१९/(प्र.क्र.२३०/२०१९) सिंव्य (कामे)

मंत्रालय, मुंबई - ४०० ०३२

दिनांक: २४ मार्च, २०२२

संदर्भ:

१) शासन ज्ञापन क्र. P ४६२/५१४५०-I (२), दिनांक २९/०८/१९६३
२) शासन परिपत्रक क्र. BKS - १४६५/५७५१४-I(s), दिनांक १३/०५/१९६६
३) कार्यकारी अभियंता, पुना पाटबंधारे विभाग यांचे परिपत्रक क्र. DB/DM/६३९०, दिनांक ०१/०९/१९६६
४) शासनाचे पत्र क्र. P ४६१/१६४१-१(५), दिनांक १३/०३/१९६८
५) शासन ज्ञापन क्र. ISE १०७२/१६७१५-I.U, दिनांक २७/०७/१९७२
६) शासन परिपत्रक क्र. MISC २००२/(२०२/२००२) IM (W),दिनांक २२/०७/२००३
७) शासन पत्र क्र. एमआयएससी २००६/२०६०/(६०२/०६)/ सिंव्य (कामे) दिनांक ३०/११/२००६
८) शासन पत्र क्र. संकीर्ण २०१४/(२२०/२०१४)/ सिंव्य (कामे) दिनांक ०९/१०/२०१५

प्रस्तावना :

धरणांच्या तुलनेत कालवा वितरण प्रणाली क्षतीग्रस्त होण्याने निर्माण होणारा धोका कमी असू शकतो. तथापि, सिंचन तसेच घरगुती आणि औद्योगिक वापराकरिता अखंड पाणीपुरवठ्यासाठी कालवा वितरण प्रणालीची सुरक्षितता अत्यंत महत्त्वाची आहे.

अ) कालवा वितरण प्रणालीच्या सुरक्षिततेच्या अनुषंगाने ठराविक वेळेस व नियमित पाहणी केल्यास कालवा वितरण प्रणालीच्या संरचनेतील त्रुटी तथा बांधकाम वा भरावाची क्षती निदर्शनास येईल ज्यायोगे आपत्कालीन परिस्थिती टाळता येऊन खर्चिक पुनर्वसन कामे टाळता येतील आणि क्षतीग्रस्त कालव्यामुळे होणारे पाण्याचे, पिकांचे आणि मालमत्तेचे नुकसान देखील टाळता येईल.

ब) कालवा देखभाल दुरुस्तीच्या कामांचे प्राधान्यक्रम निश्चित करण्यासाठी दरवर्षी एप्रिल महिन्यात वार्षिक कालवा सद्यस्थिती अहवाल (Annual Health Status Report) प्रकाशित करणे हे एक महत्वाचे साधन ठरु शकेल.

सदर बाब अनुलक्षून सर्व पाटबंधारे विकास महामंडळांच्या कार्यकारी संचालकांमार्फत वार्षिक देखभाल आणि दुरुस्तीचे नियोजन सर्वोच्च प्राधान्याने केले जाईल.

सर्व क्षेत्रीय अधीक्षक अभियंता / कार्यकारी अभियंता यांना "पाण्याच्या प्रत्येक थेंबाचा परिणामकारक वापराचे" उद्दिष्ट साध्य करण्यासाठी अधिक जबाबदार बनवणे आवश्यक आहे. यास्तव क्षेत्रीय मुख्य अभियंत्यांनी त्यांच्या कार्यक्षेत्रातील वार्षिक कालवा तपासणीचे संनियंत्रण करणे आवश्यक आहे.

विस्तृत प्रश्नावली आणि विहित प्रपत्राच्या स्वरूपात तपशीलवार मार्गदर्शक तत्त्वे फार पूर्वीपासून उपलब्ध होती. तथापि, कालवा प्रणालीच्या तपासणीसाठी कोणतेही "विहीत प्रपत्र" उपलब्ध नव्हते. कालव्याच्या तपासणीसाठी एकसमान आणि प्रमाणित प्रक्रिया, मार्गदर्शक तत्त्वे आणि विहीत प्रपत्रे

असावीत ही बाब शासनाच्या विचाराधीन होती. यास्तव संदर्भांकित सर्व ज्ञापने, परिपत्रके आणि पत्रांना अधिक्रमीत करुन शासन पुढील निर्णय घेत आहे.

शासन निर्णय :

१.० विहीत प्रपत्रे :

अ) कालवा वितरण प्रणाली विदागार संकलनाचे प्रपत्र (सहपत्र-१)
(Canal Distribution Network database Information Proforma) [Enclosure-१]

धरण सुरक्षितता संघटने अंतर्गत कालवा सुरक्षा विभागात राज्यातील कालवा वितरण प्रणाली संबंधी विदागार संकलित करण्यासाठी सदर प्रपत्रात माहिती आवश्यक आहे. सदर माहिती ही कायमस्वरुपी (Static) न बदलणारी आहे. त्यामुळे ही माहिती मुख्य अभियंता स्तरावरुन प्रमाणित होणे गरजेचे आहे व भविष्यात यात काही बदल करावयाचे असल्यास ते बदल कारण मिमांसेसह सर्व संबंधितांना कळविण्यात यावे.

कालवासंबंधी बांधकामांची माहिती संकलित करताना प्रपत्रातील माहिती टप्प्या टप्प्याने पुढीलप्रमाणे संकलित करण्यात यावी.

१) प्रथम टप्प्यात फक्त मोठे व मध्यम प्रकल्पांची माहिती संकलित करणे.

२) शासन निर्णय प्रसृत झालेनंतर १ वर्षाच्या कालावधीत, प्रथम टप्प्यात फक्त कार्यकारी अभियंता तपासणी स्तरावरील म्हणजेच ३० मीटर वा त्यापेक्षा जास्त अंत्याधार भिंतीतील (Abutment) अंतर असणारी बांधकामे तसेच ८ मीटर पेक्षा जास्त उंचीचे माती भरावांची माहिती कालवा सुरक्षा विभाग, धरण सुरक्षितता संघटना, नाशिक येथे संकलित करणे.

३) शासन निर्णय प्रसृत झालेनंतर २ वर्षाच्या कालावधीत, उप अभियंता तपासणी स्तरावरील म्हणजेच २० मीटर वा त्यापेक्षा जास्त अंत्याधार भिंतीतील (Abutment) अंतर असणारी बांधकामे तसेच ६ मीटर पेक्षा जास्त उंचीचे माती भरावांची माहिती मंडळ स्तरावर संकलित करणे.

४) शासन निर्णय प्रसृत झालेनंतर ३ वर्षाच्या कालावधीत, कनिष्ठ अभियंता स्तरावरील माहिती मंडळ स्तरावर संकलित करणे.

५) शासन निर्णय प्रसृत झालेनंतर ३ वर्षाच्या कालावधीत, कनिष्ठ अभियंता स्तरावरील ल.पा. योजनासंबंधी माहिती विभाग स्तरावर संकलित करणे.

ब) कालवा वितरण प्रणाली वार्षिक तपासणीसाठी सक्षम प्राधिकारी व तपासणी अहवाल सादर करणेसाठी सक्षम स्तराबाबतचा तपशील (सहपत्र-२) प्रमाणे असेल.
(Competent Authority for Inspection of Canal Distribution Network and Report Submission) [Enclosure-२]

क) कालवा वितरण प्रणाली वार्षिक तपासणीचे विहीत प्रपत्र [सहपत्र-३] (Annual Canal Distribution Network Inspection Proforma) [Enclosure-३]

वरील (ब) मध्ये नेमून दिल्यानुसार सक्षम क्षेत्रिय अधिका-यांनी करावयाची वार्षिक कालवा वितरण प्रणाली तपासणी दरवर्षी १ जानेवारी ते ३१ डिसेंबर दरम्यान पूर्ण करुन विहीत प्रपत्रात आवश्यक माहिती भरुन सक्षम स्तरावर सादर करावे.

२.० वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवाल : (Annual Canal Distribution Network Health Status Report) :

क) कालवा सुरक्षा विभाग, धरण सुरक्षितता संघटना, नाशिक या कार्यालयाने दि. १ जानेवारी ते ३१ डिसेंबर या गतवर्षाच्या कालावधीत तपासणीच्या अनुषंगाने पुढील वर्षाच्या ३१ जानेवारीपर्यंत क्षेत्रिय स्तरावरुन प्राप्त झालेल्या कालवा वितरण प्रणाली वार्षिक तपासणी अहवालांची छाननी व विश्लेषण करावे.

ख) महासंचालक, संप्रजसंसु, मेरी , नाशिक यांनी मंजूर केलेल्या वार्षिक तपासणी कार्यक्रमानुसार कालवा सुरक्षा विभागाकडून कालव्याच्या निवडक बांधकामांची व भरावांची नमुना तपासणी करावी.

ग) कालवा सुरक्षा विभाग, धरण सुरक्षितता संघटना, नाशिक या कार्यालयाने "वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवाल" तयार करुन महासंचालक, संप्रजसंसु, मेरी , नाशिक यांच्या मान्यतेने प्रकाशित करावा.

घ) वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालात खालील बाबींचा अंतर्भाव असेल.

१) गतवर्षी प्रकाशित वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालातील (Annual Canal Distribution Network Health Status Report) उपस्थित त्रुटींबाबत क्षेत्रिय स्तरावरुन प्राप्त कृती अहवाल. (Action Taken Report)

२) १ जानेवारी ते ३१ डिसेंबर या गतवर्षाच्या कालावधीत तपासणीच्या अनुषंगाने क्षेत्रिय स्तरावरुन प्राप्त कालवा वितरण प्रणाली वार्षिक तपासणी अहवालात (Annual Canal Distribution Network Inspection Report) निदर्शनास आणलेल्या त्रुटी व त्यावरील उपाययोजना.

३) वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालाची उपयुक्तता वाढविण्यासाठी आवश्यक अतिरिक्त माहिती.

ङ) वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालात अंतर्भूत विविध त्रुटी पुढीलप्रमाणे वर्गीकृत कराव्यात.

त्रुटी वर्गीकरण	**त्रुटी वर्गीकरण अनुषंगिक कार्यवाही**
संवर्ग अ	अत्यंत तातडीने उपाययोजना करावयाच्या गंभीर त्रुटी
संवर्ग ब	नजिकच्या काळात विशेष दुरुस्ती अंतर्गत उपाययोजना करावयाच्या त्रुटी
संवर्ग क	नियमीत देखभाल आणि दुरुस्ती अंतर्गत उपाययोजना करावयाच्या त्रुटी

च) कालवा सुरक्षा विभाग, धरण सुरक्षितता संघटना यांनी "श्रेणी अ" त्रुटी स्वतंत्र पत्राव्दारे क्षेत्रिय कार्यालयाच्या निदर्शनास आणाव्यात. त्रुटींचे दृढीकरण क्षेत्रीय अधीक्षक अभियंता यांनी करावे.त्रुटींच्या तीव्रतेच्या आधारावर पुनर्वर्गीकरण आवश्यक असल्यास,कालवा सुरक्षा विभाग, धरण सुरक्षितता संघटनेला त्वरित कळवावे.

छ) कनिष्ठ अभियंता/ शाखा अभियंता / सहाय्यक अभियंता श्रेणी-२ आणि उप अभियंता (सहपत्र-३, अ.क्र. १ व २) यांनी दि. १ जानेवारी ते ३१ डिसेंबर या कालावधीतील तपासणीच्या अनुषंगाने सादर केलेल्या वार्षिक कालवा वितरण प्रणाली तपासणी अहवालावर आधारीत वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवाल संबंधित क्षेत्रिय अधीक्षक अभियंता द्वारे दरवर्षी फेब्रुवारी महिन्यात प्रकाशित करण्यात

येवून राज्याच्या वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालात अंतर्भूत करण्याच्या अनुषंगाने धरण सुरक्षितता संघटनेकडे सादर करण्यात यावा.

ज) पाटबंधारे विकास महामंडळांतर्गत प्रत्येक मंडळ कार्यालयाने फेब्रुवारी महिन्यात प्रकाशित कराव्याच्या वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालाच्या प्रकाशनाचे संनियंत्रण कार्यकारी संचालक यांनी करावे.

झ) कार्यकारी अभियंता आणि अधीक्षक अभियंता (सहपत्र -३, अ.क्र.३ व ४) यांनी दि. १ जानेवारी ते ३१ डिसेंबर या कालावधीतील तपासणीच्या अनुषंगाने सादर केलेले वार्षिक कालवा वितरण प्रणाली तपासणी अहवाल व गतवर्षी प्रकाशित वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवालातील उपस्थित त्रुटींवरील कृती अहवाल क्षेत्रिय स्तरावरुन पुढील वर्षाच्या ३१ जानेवारीपर्यंत धरण सुरक्षितता संघटनेस सादर करणे आवश्यक आहे. सदर बाबींचे संनियंत्रण क्षेत्रिय मुख्य अभियंता यांनी करावे जेणेकरुन वार्षिक कालवा वितरण प्रणाली सद्यस्थिती अहवाल दरवर्षी एप्रिल मध्ये प्रकाशित करण्यात येतील व उपरोक्त अहवाल सक्षम क्षेत्रिय प्राधिका-यांना वितरण प्रणाली दुरुस्तीच्या उपाय योजनांचा प्राधान्यक्रम “प्रापण सुची” मंजुरीस मार्गदर्शक राहील.

त) वार्षिक कालवा वितरण प्रणाली तपासणी व वार्षिक कालवा वितरण प्रणाली सद्यास्थिती अहवाल प्रकाशन या बाबींचा सन २०२२-२३ पासून संबंधीत क्षेत्रिय अधिका-यांच्या फलनिष्पत्ती क्षेत्र उद्दिष्टांमध्ये अंतर्भाव करावा.

सदर शासन निर्णय महाराष्ट्र शासनाच्या www.maharashtra.gov.in या संकेतस्थळावर उपलब्ध करण्यात आला असून त्यांचा संगणक संकेतांक क्र. २०२२०३२४१६०३५६६४२७ असा आहे. हा आदेश डिजीटल स्वाक्षरीने साक्षांकित करुन काढण्यात आला आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने,

सहपत्र :

१) कालवा वितरण प्रणाली विदागार संकलनाचे प्रपत्र (सहपत्र-१)
२) तपासणीसाठी सक्षम अधिकारी व अहवाल सादर करणेसाठी सक्षम स्तर (सहपत्र-२)
३) कालवा वितरण प्रणाली वार्षिक तपासणीचे विहीत प्रपत्र (सहपत्र-३)

Vaijnath Manmathappa Chille

Digitally signed by Vaijnath Manmathappa Chille
DN: CN = Vaijnath Manmathappa Chille, C = IN, S = Maharashtra, O = Government of Maharashtra, OU = Water Resources Department
Date: 2022.03.24 16:10:45 +05'30'

(वैजनाथ चिल्ले)
उप सचिव,महाराष्ट्र शासन

प्रत,

१) अपर मुख्य सचिव (जलसंपदा),जलसंपदा विभाग,मंत्रालय,मुंबई
२) सचिव (लाक्षेवि),जलसंपदा विभाग,मंत्रालय,मुंबई
३) सचिव (प्रकल्प समन्वय),जलसंपदा विभाग,मंत्रालय,मुंबई
४) महासंचालक,मेरी,नाशिक
५) कार्यकारी संचालक,महाराष्ट्र कृष्णा खोरे विकास महामंडळ,पुणे
६) कार्यकारी संचालक,विदर्भ पाटबंधारे विकास महामंडळ,नागपूर

७) कार्यकारी संचालक,गोदावरी मराठवाडा पाटबंधारे विकास महामंडळ,औरंगाबाद
८) कायकारी संचालक,तापी पाटबंधारे विकास महामंडळ,जळगाव
९) कार्यकारी संचालक,कोकण पाटबंधारे विकास महामंडळ,ठाणे
१०) सर्व मुख्य अभियंता व सहसचिव ,जलसंपदा विभाग,मंत्रालय,
११) सर्व मुख्य अभियंता,जलसंपदा विभाग
१२) सर्व अधीक्षक अभियंता व उप सचिव,जलसंपदा विभाग,मंत्रालय,मुंबई
१३) अधीक्षक अभियंता,धरण सुरक्षितता संघटना,नाशिक
१४) सर्व अधीक्षक अभियंता,जलसंपदा विभाग
१५)सर्व कार्यकारी अभियंता,जलसंपदा विभाग
१६) सिंव्य कामे संग्रहार्थ

Enclosure-1

PART- A

CANAL STANDARD INFORMATION FOR DATABASE

Sr. No	Particulars		Details to be filled by Field Offices	
1.0	Name of Project (…........., Maj /Med /M.I., Tal…..., Dist…........)			
2.0	Purpose			
3.0	Nos. of Canals (Nos.)			
4.0	Type of Canal (RBC / LBC / Link /Feeder/Express) [1]			
5.0	Functional Type of Canal (Main Canal / Branch Canal/ Distributory/ Minor/ Sub Minor) [2]			
6.0	Name of Canal [3]			
7.0	Offtaking Chainage [4]			
8.0	Year of Irrigation started			
9.0	Details of Canal (Mentioned at Sr. No. 6.0)			
	9.01	Length in Km		
	9.02	Length in Km in Non-Urban Area (Ch. …..... To …......)		
	9.03	Length in Km in Urban Area (Ch. …..... To …......)		
	9.04	Design Discharge in Cumecs [5]		
	9.05	Whether Lined / Unlined ? (Lined/ Unlined/ Partially Lined)		
	9.06	If Lined/ Partially Lined, Length in Km		
	9.07	Length of Service Road in Km.		
			Nos.	**Chainages**
	9.08	Nos. & Offtaking Chainages of Branch Canal		
	9.09	Nos. & Offtaking Chainages of Distributory		
	9.10	Nos. & Offtaking Chainages of Minors		
	9.11	Nos. & Offtaking Chainages of SubMinors		
	9.12	Nos. & Chainages of Direct Outlets		
	9.13	Nos. & Chainages of Measuring Devices (SWF, CTF, etc.)		
	9.14	Nos. & Chainages of Cross Regulators		
	9.15	Nos. & Chainages of Head Regulators		
	9.16	Nos. & Chainages of Escapes		
	9.17	Nos. & Chainages of Aqueducts		
	9.18	Nos. & Chainages of Superpassages		
	9.19	Nos. & Chainages of Canal Syphons		
	9.20	Nos. & Chainages of Nalla Syphons		
	9.21	Nos. & Chainages of Slab Drains		
	9.22	Nos. & Chainages of Pipe Drains		
	9.23	Nos. & Chainages of Inlets		
	9.24	Nos. & Chainages of Outlets		
	9.25	Nos. & Chainage of Fall Structures		
	9.26	Nos. & Chainage of Tunnels		
	9.27	Nos. & Chainage of Cut & Covers		
	9.28	Nos. & Chainage of Railway Crossings		
	9.29	Nos. & Chainage of Expressway Crossings		
	9.30	Nos. & Chainage of State / National Highway		
	9.31	Nos. & Chainages of Other District Road Crossings		
	9.32	Nos. & Chainages of Village Road Crossings		
	9.33	Nos. & Chainage of Deep Cuts		
	9.34	Nos. & Chainage of High Embankments (≥ 3.00 m)		
10.0	Attach Line Sketch of Canal Network as per Annexure 1 depicting Length & Discharge.			

Note :

1. *Mention the type of canal as RBC / LBC / Link / Feeder / Express*
2. *Mention the Functional Type of canal as Main Canal / Branch Canal/ Distributory/ Minor / Sub Minor*
3. *Mention Name of Canal as e.g. Minor-3 of Dy. -2 of R.B.C.*
4. *Mention Off taking Chainage from Parent Canal*
5. *Mention Disharge and Length for each Reach (Wherever Change in Discharge occurs)*

General Instructions :

1. *Give information Separately for each Main Canal/ Branch / Distributory / Minor/Sub Minor.*
2. *Information furnished shall be self explantory, No vague or incomplete information shall be provided.*

Executive Engineer
…..............Division
….........

Enclosure-1

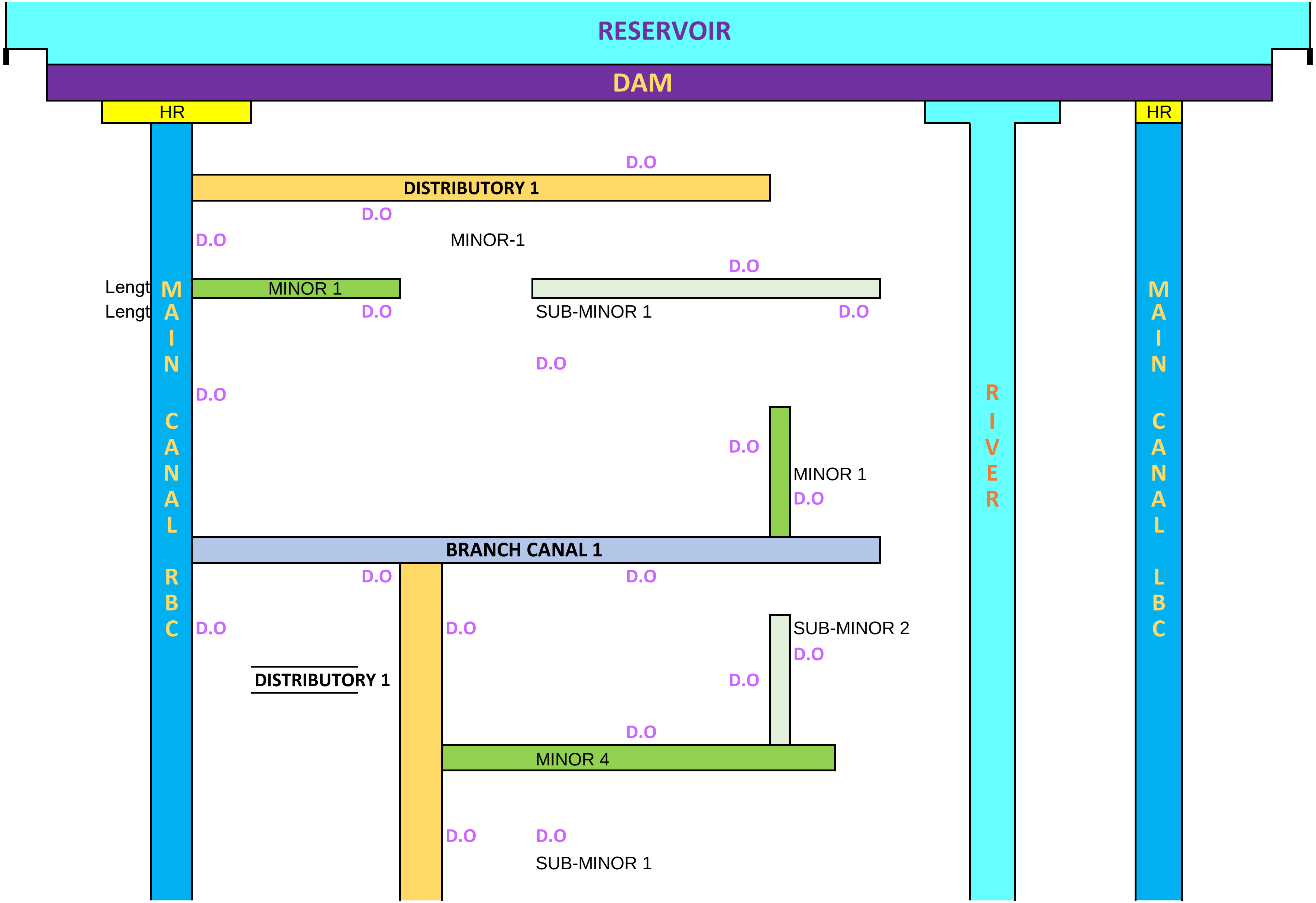
PART-B

DETAILS OF FIELD OFFICES

Office	Office Name	E-Mail ID (Official)	Contact No. (Office Landline)	Postal Address	Jurisdiction
Region					
Circle					
Division					
Sub Division					
Section					

Enclosuer-1

ANNEXURE-1



Enclosure - 2

Competent Authority of Inspection & Report Submission

Sr. No.	**Structures**	**Embankment Height (m)**	**Inspection Authority**	**Submission of Inspection Reports by 31'st March**
1	**2**	**3**	**4**	**5**
1	All Structures	All Embankments	JE/ SO/ AE-II	Deputy Engineer
2	**A) Canal lying in Non-Urban Area :**			
	10% of Structures having abutment to abutment length ≥ 20 m & Structures Pointed out by Junior Engineer needs attention of Deputy Engineer. (At least 1 structure of each type)	10% of Embankments > 6.00 m & Embankments Pointed out by Junior Engineer needs attention of Deputy Engineer (At least 1 Embankment)	Deputy Engineer	Superintending Engineer / Executive Engineer
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appriciable to excessive) :			
	50% of Structures having abutment to abutment length ≥ 20 m & Structures Pointed out by Junior Engineer needs attention of Deputy Engineer. (At least 1 structure of each type)	50% of Embankments > 6.00 m & Embankments Pointed out by Junior Engineer needs attention of Deputy Engineer (At least 1 Embankment)	Deputy Engineer	Superintending Engineer / Executive Engineer
3	**A) Canal lying in Non-Urban Area :**			
	2% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Deputy Engineer needs attention of Executive Engineer (At least 1 structure of each type)	2% of Embankments > 8.00m & Embankments Pointed out by Deputy Engineer needs attention of Executive Engineer (At least 1 Embankment)	Executive Engineer	1) Superintending Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik

Sr. No.	Structures	Embankment Height (m)	Inspection Authority	Submission of Inspection Reports by 31'st March
1	2	3	4	5
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appriciable to excessive) :			
	10% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Deputy Engineer needs attention of Executive Engineer Engineer. (At least 1 structure of each type)	10% of Embankments > 8.00m & Embankments Pointed out by Deputy Engineer needs attention of Executive Engineer (At least 1 Embankment)	Executive Engineer	1) Superintending Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik
4	**A) Canal lying in Non-Urban Area :**			
	1% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 structure of each type)	1% of Embankments > 8.00m & Embankments Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 Embankment)	Superintending Engineer	1) Chief Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appriciable to excessive) :			
	5% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 structure of each type)	5% of Embankments > 8.00m & Embankments Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 Embankment)	Superintending Engineer	1) Chief Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik

Enclosure-3

FORM OF ANNUAL INSPECTION OF CANAL NETWORK (Year :)

Name of Project : **Tal. :** **Dist. :**

PART-A

Instructions about carrying out Annual Inspection of Canal Network and processing of Inspection Report.	
1.0	This Inspection Proforma shall be used for Inspection of Canal Network by Competent Authority & carried out Inspections as scheduled as per **"Annexure-1"**
2.0	Separate inspection report shall be submitted for Canals in Non- Urban & Urban areas.
3.0	Details of field Officers should be given in **"Part-B".**
4.0	The "**Special Inspection"** following a severe distressing event or incident must focus more attention on the zone of damage or the zone of likely damage.
5.0	The Inspections and Preparation of Inspection Reports shall be done in this Prescribed Proforma /Questionnaire for Annual Canal Network Inspection.
6.0	Information filled by Field Officers must be self Explanatory, No vague or incomplete information shall be furnished.
7.0	The Inspecting Officers are required to note the General Instructions about carrying out Inspections of canal Network carefully and conduct the Inspection and prepare and process the Annual Inspection Report accordingly.
8.0	Before conducting the Annual Inspections and Special Inspection, the **"Part-B"** i.e. Data collection and Office verification of records must be completed carefully conducting an Office Inspection of the relevant records. The Inspecting Officer may take assistance of a trained assistant and review the same before taking up the actual Inspection.
9.0	After Data collection and Office verification of the record is completed, the Inspecting Officer will proceed to conduct the actual field inspection of the Canal Network and ancillary work and complete the relevant details in **"Part C"** on basis the of actual observations.
10.0	The Inspecting Officer is expected to personally visit each and every spot on the canal and take appropriate operating trials wherever necessary for inspection. An inspection conducted from a vehicle is not effective.
11.0	The Inspecting Officer is advised to mention **"Special Attention"** in the Inspection Reports against all such items wherever immediate attention is necessary from the concerned Field Officers incharge from the point of Safety of the Canal.
12.0	The concerned Field Officers must initiate immediate necessary action in respect of appropriate remedial measure for all the deficiencies noticed on the Canal with due permission of Competent Authority. The action taken and the improvements noticed in respect of the deficiencies must also be reported to all the concerned Authorities to whom the Inspection Reports are sent.
13.0	Separate information should be furnished in **"Part C"**, separately for similar type of structures. Number should be assigned as Illustrutated, for e.g. If there are 3 no. of Aqueducts at chainage 7/190, 19/740 & 21/103 then they should be numbered as 5(1) Aqueduct (Ch. 7/190), 5(2) Aqueduct (Ch19/740), 5(3) Aqueduct (Ch. 21/103) & so on.
14.0	The Periodical Inspections do not absolve the concerned Field Officers, in charge of maintenance and operation of canal, from their responsibility of immediate timely inspection and rectification of all the deficiencies noticed during the regular operation and maintenance of the Canals and keeping the Canals in Safe Condition.
15.0	This inspection questionnaire is just a guideline for inspection of Canal Network & If different situtation is observed those points shall be noted in addition to this.

Enclosure-3

Annexure - 1

Competent Authority of Inspection & Report Submission

Sr. No.	Structures	Embankment Height (m)	Inspection Authority	Submission of Inspection Reports by 31'st March to
1	2	3	4	5
1	All Structures	All Embankments	JE/ SO/ AE-II	Deputy Engineer
2	**A) Canal lying in Non-Urban Area :**			
	10% of Structures having abutment to abutment length ≥ 20 m & Structures Pointed out by Junior Engineer needs attention of Deputy Engineer. (At least 1 structure of each type)	10% of Embankments > 6.00 m & Embankments Pointed out by Junior Engineer needs attention of Deputy Engineer (At least 1 Embankment)	Deputy Engineer	Superintending Engineer / Executive Engineer
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appreciable to excessive) :			
	50% of Structures having abutment to abutment length ≥ 20 m & Structures Pointed out by Junior Engineer needs attention of Deputy Engineer. (At least 1 structure of each type)	50% of Embankments > 6.00 m & Embankments Pointed out by Junior Engineer needs attention of Deputy Engineer (At least 1 Embankment)	Deputy Engineer	Superintending Engineer / Executive Engineer
3	**A) Canal lying in Non-Urban Area :**			
	2% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Deputy Engineer needs attention of Executive Engineer Engineer. (At least 1 structure of each type)	2% of Embankments > 8.00m & Embankments Pointed out by Deputy Engineer needs attention of Executive Engineer (At least 1 Embankment)	Executive Engineer	1) Superintending Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik

Sr. No.	Structures	Embankment Height (m)	Inspection Authority	Submission of Inspection Reports by 31'st March to
1	2	3	4	5
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appriciable to excessive) :			
	10% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Deputy Engineer needs attention of Executive Engineer Engineer. (At least 1 structure of each type)	10% of Embankments > 8.00m & Embankments Pointed out by Deputy Engineer needs attention of Executive Engineer (At least 1 Embankment)	Executive Engineer	1) Superintending Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik
4	**A) Canal lying in Non-Urban Area :**			
	1% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 structure of each type)	1% of Embankments > 8.00m & Embankments Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 Embankment)	Superintending Engineer	1) Chief Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik
	B) Canal lying in Urban Area having Hazard Potential Category - Medium to High (i.e. loss of life - few or more than few & economic loss - appriciable to excessive) :			
	5% of Structures having abutment to abutment length ≥ 30 m & Structures Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 structure of each type)	5% of Embankments > 8.00m & Embankments Pointed out by Executive Engineer needs attention of Superintending Engineer (At least 1 Embankment)	Superintending Engineer	1) Chief Engineer 2) Superintending Engineer, Dam Safety Organisation, Nashik

Enclosure-3

FORM OF ANNUAL INSPECTION OF CANAL NETWORK

PART-B

DATA COLLECTION AND OFFICE VERIFICATION OF RECORDS

Item No	Item to be Inspected			Observations and Recommendations, if any, of the Authorised Inspecting Officers
1.0	**General :**			
	1.1	Name of Project		
	1.2	Number of Canals		
	1.3	Name of Canal (RBC / LBC)		
	1.4	Date/s of Current Inspection		
	1.5	Whether Inspection is during Rotation period ?		Yes / No
	1.6	Name & Official Designation of the Inspecting Authority.		
2.00	Before conducting the Annual Inspections and Special Inspection, the **"Part-B"** i.e. Data collection and Office verification of records must be completed carefully conducting an Office Inspection of the relevant records. The Inspecting Officer may take assistance of a trained assistant and review the same before taking up the actual Inspection.			
	2.1	Previous Inspection		
		2.1.1	Date of Previous Inspection	
		2.1.2	Reference No. and Date of submission of Previous Inspection Report	
	2.2	History of the past important events of distress and accidents to the canal, if any, and brief details of remedial measures carried out and their effects. (Attach a Separate Note in the form of an appendix, if required.)		
3.00	**Office-in-Charge :**			
	3.1	Names, Designations, E-mail ID, Phone Numbers & Office Address of the Officers responsible for the maintenance of the Canal. (C.E./S.E./E.E./Dy.E and Sectional Officer)		Attach List Separately as per Annexure-2
	3.2	Names and Designation of all the Irrigation Management staff and skilled workers working exclusively on operation and maintenance of the Canal.		Attach List Separately as per Annexure-3

Item No	Item to be Inspected			Observations and Recommendations, if any, of the Authorised Inspecting Officers
	3.3	Are all the members of the maintenance staff adequately trained and fully conversant with their responsibilities concerning ?		
		3.3.1	Identification of signs of deficient behaviour.	
		3.3.2	Reporting procedures of emergency situations.	
		3.3.3	Emergency repairs.	
4.00	**Inspection of Records :**			
	4.1.	Does the Officer-in-Charge possess all the relevant data and drawings of the canals & Structures in their jurisdiction ?		
		4.1.1	Calibration Charts of flow measuring Structures.	
		4.1.2	Restrictions in operating canals at design discharge.	
		4.1.3	Encroachment in free board.	
5.0	**Rules of inspections :**			
	5.1	When and by whom was the Canal required to be inspected during the year immediately preceeding this inspection ?		
	5.2	Has this inspection been carried out ?		Yes / No
	5.3	If No, is the reasons for defering the stipulated inspection on record ?		Yes / No
		5.3.1	If Yes, then state the reason	

Enclosure-3

Annexure-2

Details of field officers

Sr.No.	Name	Designation	E-mail ID	Contact No.

Annexure-3

Details of Irrigation Management Staff

Sr.No	Name	Designation

Enclosure-3

PART - C

FORM OF ANNUAL INSPECTION OF CANAL NETWORK (Non-Urban / Urban)

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
1.0	**Standing Wave Flume (SWF) :**			
	1.01	Chainage		
	1.02	Year of Construction		
	1.03	Type of Construction	UCR/ Concrete/ Fabricated	
	1.04	Whether canal is straight on u/s and d/s of SWF ?	Yes / No	
	1.05	Whether the SWF is Calibrated ?	Yes / No	
	1.06	Whether the hump of SWF is disappeared due to siltation ? If Yes, give details.	Yes / No	
	1.07	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	1.08	Whether loosening of UCR masonry stone is observed ? If Yes, give details.	Yes /No	
	1.09	Whether gauge chamber is clean and inlet pipe is clear ? If No, give details.	Yes / No	
	1.10	Whether gauge plate is readable up to one centimeter ? If No, give details.	Yes / No	
	1.11	Whether zero of the gauge and level of hump are same ? If No, give details.	Yes / No	
	1.12	Whether jump was formed after throat when flow was within 1/3 rd FSL to full F.S.L.? If No, give details.	Yes / No	
	1.13	Whether structure is free from vegetation ? If No give details.	Yes / No	
	1.14	Whether Gauge Vs Design flow chart is available at site ?	Yes / No	
	1.15	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
2.0	**Cross Regulator (CR) :**			
	2.01	Chainage		
	2.02	Year of Construction		
	2.03	Type of Construction	UCR/ Concrete	
	2.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	2.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (Abutment / Pier)	Yes / No	
	2.06	Whether foundation scouring is observed ? If Yes, give details.(Abutment / Pier)	Yes / No	
	2.07	Whether reinforcement of concrete is exposed? If Yes, give extent (%)	Yes / No	
	2.08	Whether gate leafs & frames are in good condition ? If No, give details.	Yes / No	
	2.09	Whether leakage is observed through sill beam and edges of gate? If Yes, give details.	Yes / No	
	2.10	Whether leakage is observed through structure ? If Yes, give details.	Yes / No	
	2.11	Whether the gate operation is smooth & easy? If No, give details.	Yes / No	
	2.12	Whether hoisting assembly (Wire Ropes / Stem Rod) is properly lubricated ?	Yes / No	
	2.13	Whether structure is free from vegetation ? If No give details.	Yes / No	
	2.14	Whether iron parts are painted ?	Yes / No	
	2.15	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
3.0	**Head Regulator (HR) :**			
	3.01	Chainage		
	3.02	Year of Construction		
	3.03	Type of Construction	UCR/ Concrete	
	3.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	3.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details.	Yes /No	
	3.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	3.07	Whether reinforcement of concrete is exposed ? If Yes, give extent (%)	Yes / No	
	3.08	Whether gate leafs & frames are in good condition ? If No, give details.	Yes / No	
	3.09	Whether leakage is observed through sill beam and edges of gate ? If Yes, give details.	Yes / No	
	3.10	Whether leakage is observed through structure ? If Yes, give details.	Yes / No	
	3.11	Whether the gate operation is smooth & easy ? If No, give details.	Yes / No	
	3.12	Whether hoisting assembly (Wire Ropes / Stem Rod) is properly lubricated ?	Yes / No	
	3.13	Whether iron parts are painted ?	Yes / No	
	3.14	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
4.0	**Escape :**			
	4.01	Chainage		
	4.02	Year of Construction		
	4.03	Type of Construction	UCR/ Concrete	
	4.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	4.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details.	Yes /No	
	4.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	4.07	Whether reinforcement of concrete is exposed? If Yes, give extent (%)	Yes / No	
	4.08	Whether gate leafs & frames are in good condition ? If No, give details.	Yes / No	
	4.09	Whether leakage is observed through sill beam and edges of gate? If Yes, give details.	Yes / No	
	4.10	Whether leakage is observed through structure ? If Yes, give details.	Yes / No	
	4.11	Whether the gate operation is smooth & easy? If No, give details.	Yes / No	
	4.12	Whether hoisting assembly (Wire Ropes / Stem Rod) is properly lubricated ?	Yes / No	
	4.13	Whether iron parts are painted ?	Yes / No	
	4.14	Whether Escape channel is free from encroanchment ?	Yes / No	
	4.15	Whether Escape channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	4.16	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
5.0	**Aqueduct (Aq) :**			
	5.01	Chainage		
	5.02	Year of Construction		
	5.03	Type of Structure	Pipe / Trough / Bridge cum	
	5.04	Type of Construction	UCR / Concrete / Composite	
	5.05	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	5.06	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (Wing Wall / Abutment / Pier)	Yes /No	
	5.07	Whether foundation scouring is observed ? If Yes, give details. (Wing Wall / Abutment / Pier)	Yes /No	
	5.08	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	5.09	Whether leakage is observed through structure ? If Yes, give details (With details of Slab/ Parapet/Wing Wall / Abutment & Quantum)	Yes / No	
	5.10	Whether leakage is observed through Joints ? If Yes, give details (With details of Construction/ Contraction / Expansion Joint & Quantum)	Yes / No	
	5.11	Whether structure is free from vegetation ? If No give details.	Yes / No	
	5.12	Whether bearings on pier located at the bottom of trough are inspected ? If Yes, give details. (Condition of Pads, their Cleanliness, Wear and Tear, Lubrication and Greasing)	Yes / No	
	5.13	Whether Parapet wall of Bridge cum Aqueduct is in good Condition ? If No, give details.	Yes / No	
	5.14	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	5.15	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	5.16	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
6.0	**Superpassage :**			
	6.01	Chainage		
	6.02	Year of Construction		
	6.03	Type of Structure	Pipe / Trough /	
	6.04	Type of Construction	UCR / Concrete / Composite	
	6.05	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	6.06	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (Wing Wall / Abutment / Pier)	Yes /No	
	6.07	Whether foundation scouring is observed ? If Yes, give details. (Wing Wall / Abutment / Pier)	Yes /No	
	6.08	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	6.09	Whether leakage is observed through structure ? If Yes, give details (With details of Slab/ Parapet/Wing Wall / Abutment & Quantum)	Yes / No	
	6.10	Whether leakage is observed through Joints ? If Yes, give details (With details of Construction/ Contraction / Expansion Joint & Quantum)	Yes / No	
	6.11	Whether structure is free from vegetation ? If No give details.	Yes / No	
	6.12	Whether bearings on pier located at the bottom of trough are inspected ? If Yes, give details. (Condition of Pads, their Cleanliness, Wear and Tear, Lubrication and Greasing)	Yes / No	
	6.13	Whether Parapet wall of Bridge cum Superpassage is in good Condition ? If No, give details.	Yes / No	
	6.14	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	6.15	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	6.16	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
7.0	**Canal Syphon :**			
	7.01	Chainage		
	7.02	Year of Construction		
	7.03	Type of Structure	Pipe / Trough	
	7.04	Type of Construction	UCR / Concrete / Composite	
	7.05	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	7.06	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Well / D/S Well / Barrel)	Yes /No	
	7.07	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	7.08	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	7.09	Whether leakage is observed through structure ? If Yes, give details (With details of Slab/ Side Walls & Quantum)	Yes / No	
	7.10	Whether leakage is observed through Joints ? If Yes, give details (With details of Construction/ Contraction / Expansion Joint / Collar Joint & Quantum)	Yes / No	
	7.11	Whether structure is free from vegetation ? If No give details.	Yes / No	
	7.12	Whether U/S & D/S Wells & Barrel are free from debris & Siltation ? If No, give details.	Yes / No	
	7.13	Whether the trash rack/ iron grill at entrance of syphon is in good condition ? If No, give details.	Yes / No	
	7.14	Whether there is obstacle to canal discharge due to blockages of trash rack/grill?	Yes / No	
	7.15	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	7.16	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	7.17	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
8.0	**Nalla Syphon :**			
	8.01	Chainage		
	8.02	Year of Construction		
	8.03	Type of Structure	Pipe / Trough	
	8.04	Type of Construction	UCR / Concrete / Composite	
	8.05	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	8.06	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Well / D/S Well / Barrel)	Yes /No	
	8.07	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	8.08	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	8.09	Whether leakage is observed through structure ? If Yes, give details (With details of Slab/ Side Walls & Quantum)	Yes / No	
	8.10	Whether leakage is observed through Joints ? If Yes, give details (With details of Construction/ Contraction / Expansion Joint / Collar Joint & Quantum)	Yes / No	
	8.11	Whether structure is free from vegetation ? If No give details.	Yes / No	
	8.12	Whether U/S & D/S Wells & Barrel are free from debris & Siltation ? If No, give details.	Yes / No	
	8.13	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	8.14	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	8.15	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
9.0	**Box Culvert :**			
	9.01	Chainage		
	9.02	Year of Construction		
	9.03	Type of Construction	UCR / Concrete /	
	9.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	9.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Head Wall / D/S Head Wall / Box)	Yes /No	
	9.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	9.07	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	9.08	Whether leakage is observed through structure ? If Yes, give details (From Canal point of view-With details of Slab/ Side Walls & Quantum)	Yes / No	
	9.09	Whether leakage is observed through Joints ? If Yes, give details (From Canal point of view-With details of Construction/ Contraction / Expansion Joint / Collar Joint & Quantum)	Yes / No	
	9.10	Whether structure is free from vegetation ? If No give details.	Yes / No	
	9.11	Whether U/S & D/S cross section & Box porion are free from debris & Siltation ? If No, give details.	Yes / No	
	9.12	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	9.13	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	9.14	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
10.0	**Slab Culvert :**			
	10.01	Chainage		
	10.02	Year of Construction		
	10.03	Type of Construction	UCR / Concrete / Composite	
	10.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	10.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Head Wall / D/S Head Wall / Wing Wall)	Yes /No	
	10.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	10.07	Whether reinforcement of concrete is exposed? If Yes, give details & extent (%) (Vertical Sides / Bottom of Slab exposed surface details with extent of scaling of reinforcement)	Yes / No	
	10.08	Whether leakage is observed through structure ? If Yes, give details (From Canal point of view-With details of Slab/ Side Walls & Quantum)	Yes / No	
	10.09	Whether leakage is observed through Joints ? If Yes, give details (From Canal point of view-With details of Construction/ Contraction / Expansion Joint / Collar Joint & Quantum)	Yes / No	
	10.10	Whether structure is free from vegetation ? If No give details.	Yes / No	
	10.11	Whether U/S & D/S cross section & barrel are free from debris & Siltation ? If No, give details.	Yes / No	
	10.12	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	10.13	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	10.14	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
11.0	**Pipe Culvert :**			
	11.01	Chainage		
	11.02	Year of Construction		
	11.03	Type of Construction	UCR / Concrete /	
	11.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	11.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Head Wall / D/S Head Wall / Wing Wall)	Yes /No	
	11.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	11.07	Whether leakage is observed through structure ? If Yes, give details (From Canal point of view-With details of U/S & D/S Head Walls & Quantum)	Yes / No	
	11.08	Whether leakage is observed through Joints ? If Yes, give details '(From Canal point of view-With details of Collar Joints & Quantum)	Yes / No	
	11.09	Whether the hume pipes used for culvert are broken /cracked ? If Yes, give details.	Yes / No	
	11.10	Whether the pipes of culvert are in alignment and as per designed level? If No, give details.	Yes / No	
	11.11	Whether structure is free from vegetation ? If No give details.	Yes / No	
	11.12	Whether U/S & D/S cross section & barrel are free from debris & Siltation ? If No, give details.	Yes / No	
	11.13	Whether natural stream is free from encroachment ? If No, give details.	Yes / No	
	11.14	Whether natural stream channel's discharge carrying capacity is sufficient ? If No, give detals.	Yes / No	
	11.15	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
12.0	**Road Bridge :**			
	12.01	Chainage		
	12.02	Year of Construction		
	12.03	Type of Construction	UCR / Concrete / Composite	
	12.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	12.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details. (U/S Head Wall / D/S Head Wall / Wing Wall)	Yes /No	
	12.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	12.07	Whether the pipes used for bridge are broken /cracked ? If Yes, give details.	Yes / No	
	12.08	Whether the pipes of bridge are in alignment and as per designed level? If No, give details.	Yes / No	
	12.09	Whether structure is free from vegetation ? If No give details.	Yes / No	
	12.10	Whether U/S & D/S cross section & barrel are free from debris & Siltation ? If No, give details.	Yes / No	
	12.11	What was classification of road crossing canal at the time of construction ?	VRB / ODR / MDR/ SH/	
	12.12	What is current classification of road crossing canal ?	VRB / ODR / MDR/ SH/	
	12.13	Whether road bridge is transferred to PWD / ZP, due to change in traffic condions (Intensity/Loading) ? If Yes name the authority, otherwise give reason.	Yes / No	
	12.14	'Whether structure is free from vegetation ? If No give details.	Yes / No	
	12.15	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
13.0	**Railway Crossing :**			
	13.01	Chainage		
	13.02	Year of Construction		
	13.03	Type of Structure	Syphon / Bridge	
	13.04	Type of Construction	UCR / Concrete / Composite	
	13.05	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
14.0	**Tunnel :**			
	14.01	Chainage (From - To)		
	14.02	Year of Construction		
	14.03	Type of Structure	Lined / Unlined	
	14.04	Type of Construction	Concrete / Steel / Composite	
	14.05	Whether approach road with proper carriage way is available for access ?	Yes / No	
	14.06	Whether silt trap is provided at the entrance ?	Yes / No	
	14.07	Whether tunnel is free from debris & Siltation ? If No, give details.	Yes / No	
	14.08	Whether tunnel is free from vegetation ? If No give details.	Yes / No	
	14.09	Whether concrete/steel lining is in good condition ? If No, give details.	Yes / No	
	14.10	Whether air shafts provided are in good conditon & free from Vegetation ? If No, give details.	Yes / No	
	14.11	Whether there are instances of rockfall in the tunnel ? If Yes, give details.	Yes / No	
	14.12	Whether there are instances of landslides ? If Yes, give details.	Yes / No	
	14.13	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
15.0	**Cut & Cover :**			
	15.01	Chainage (From - To)		
	15.02	Year of Construction		
	15.03	Type of Structure	Lined / Unlined	
	15.04	Type of Construction	UCR / Concrete / Composite	
	15.05	Whether approach road with proper carriage way is available for access ?	Yes / No	
	15.06	Whether silt trap is provided at the entrance ?	Yes / No	
	15.07	Whether structure is free from debris & Siltation ? If No, give details.	Yes / No	
	15.08	Whether structure is free from vegetation ? If No give details.	Yes / No	
	15.09	Whether lining is in good condition ? If No, give details.	Yes / No	
	15.10	Whether there are instances of landslides ? If Yes, give details.	Yes / No	
	15.11	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
16.0	**Deep Cut :**			
	16.01	Chainage (From - To)		
	16.02	Year of Construction		
	16.03	Whether ramp with proper carriage way is available for access ?	Yes / No	
	16.04	Whether deep cut is free from debris & Siltation ? If No, give details.	Yes / No	
	16.05	Whether deep cut is free from vegetation ? If No give details.	Yes / No	
	16.06	Whether there are instances of rockfall in the deep cut ? If Yes, give details.	Yes / No	
	16.07	Whether there are instances of landslides ? If Yes, give details.	Yes / No	
	16.08	Whether berms provided are in good condition ? If No, give details.	Yes / No	
	16.09	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
17.0	**High Embankments (Height > 3.00 m)**			
	17.01	Chainage (From - To)		
	17.02	Year of Construction		
	17.03	Whether ramp with proper carriage way is available for access ?	Yes / No	
	17.04	Whether channel is free from debris & Siltation ? If No, give details.	Yes / No	
	17.05	Whether channel is free from vegetation ? If No give details.	Yes / No	
	17.06	Whether there are instances of breaches in the past ? If Yes, give details.	Yes / No	
	17.07	Whether cross section is maintained as per design section ? If No, give details.	Yes / No	
	17.08	Whether berms provided are in good condition ? If No, give details.	Yes / No	
	17.09	Whether rocktoe provided are in good condition ? If No, give details.	Yes / No	
	17.10	Whether seepage is observed through high embankment ? If Yes, give quantum in lps & state whether leakage water is clean or turbid ?	Yes / No	
	17.11	What remedial measures are proposed ?	Yes / No	
	17.12	Whether water logging is observed on the sides of embankment ?	Yes / No	
	17.13	Whether pitching is provided as per required norms ?	Yes / No	
	17.14	Whether surface drains provided on outer surface are in good condition ?	Yes / No	
	17.15	Whether horizontal and vertical cracks are observed on high embankment ? If Yes, give details.	Yes / No	
	17.16	Whether on the inner and outer slopes of embankment deep impressions due to cattle walk / rain water cuts / ant hills / cavities are observed ?	Yes / No	
	17.17	Whether breaching section is provided upstream of high embankment ?	Yes / No	
	17.18	Whether Ghat / Cattle ramp are provided as per necessity near habitation? If Yes, Whether structure is in good condition ?	Yes / No	
	17.19	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
18.0	**Fall :**			
	18.01	Chainage		
	18.02	Year of Construction		
	18.03	Type of Construction	UCR/ Concrete	
	18.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	18.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details.	Yes /No	
	18.06	Whether scouring is observed downstream of fall ? If Yes, give details.	Yes / No	
	18.07	Whether structure is free from vegetation ? If No give details.	Yes / No	
	18.08	Give general assesment about the Safety & Efficacy.		

Structure No.	Structure		Status	Observations and Recommendations of the Authorised Inspecting Authority
19.0	**Direct Outlet (DO) :**			
	19.01	Chainage		
	19.02	Year of Construction		
	19.03	Type of Construction	UCR/ Concrete	
	19.04	Whether severe cracks are developed in Structures, which may lead to collapse ?	Yes / No	
	19.05	Whether loosening of UCR masonry stone is observed ? If Yes, give details.	Yes /No	
	19.06	Whether foundation scouring is observed ? If Yes, give details.	Yes /No	
	19.07	Whether reinforcement of concrete is exposed ? If Yes, give extent (%)	Yes / No	
	19.08	Whether gate leafs & frames are in good condition ? If No, give details.	Yes / No	
	19.09	Whether leakage is observed through sill beam and edges of gate ? If Yes, give details.	Yes / No	
	19.10	Whether leakage is observed through structure ? If Yes, give details.	Yes / No	
	19.11	Whether the gate operation is smooth & easy ? If No, give details.	Yes / No	
	19.12	Whether hoisting assembly (Stem Rod) is properly lubricated ?	Yes / No	
	19.13	Whether iron parts are painted ?	Yes / No	
	19.14	Give general assesment about the Safety & Efficacy.		

Structure No.		Structure	Status	Observations and Recommendations of the Authorised Inspecting Authority
20.0		**ACCESS ROADS**		
	20.01	Whether well maintained all weather access roads are available ? If No, give details.		
	20.02	What is the type of the pavement of the access road and its condition?		
	20.03	Whether all the Main Structures & High Embankments are accesible during emergency ? If No, give details.	Yes / No	
	20.04	Give general assesment about the Safety & Efficacy.		
21.0		**COMMUNICATION FACILITIES:**		
	21.01	What kind of communication facilities are available with the management staff ?		
	21.02	Give general assesment about the Safety & Efficacy.		
22.0		**GENERAL ASSESSMENT OF CONDITIONS OF THE CANAL:**		
	22.01	Give general assessment & enumerate all your observations which you feel are adverse to the safety of the canal network for normal operation.		
	22.02	Give general assesment about the Safety & Efficacy.		

Date :-

Place :-

Executive Engineer,

…..................

.....Division,